

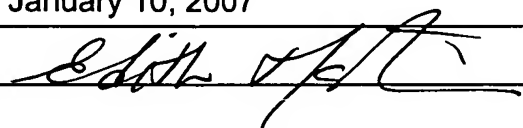

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<b>PRE-APPEAL BRIEF REQUEST FOR REVIEW</b>		Docket Number (Optional) <b>P18194</b>	
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<p>Applicant requests review of the final rejection in the above-identified application. No amendments are being filed with this request.</p> <p>This request is being filed with a notice of appeal.</p> <p>The review is requested for the reason(s) stated on the attached sheet(s).          Note: No more than five (5) pages may be provided.</p>			
I am the <input type="checkbox"/> applicant/inventor. <input type="checkbox"/> assignee of record of the entire interest. See 37 CFR 3.71. Statement under 37 CFR 3.73(b) is enclosed. (Form PTO/SB/96) <input type="checkbox"/> attorney or agent of record. Registration number _____ <input checked="" type="checkbox"/> attorney or agent acting under 37 CFR 1.34. Registration number if acting under 37 CFR 1.34 <u>56,534</u>		<div style="text-align: center;">             Signature  <b>Richard S. Finkelstein</b>            Typed or printed name            (203) 972-4982            Telephone number            January 10, 2007            Date         </div>	
NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required, see below*.			

<input type="checkbox"/> *Total of _____ forms are submitted.
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This collection of information is required by 35 U.S.C. 132. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11, 1.14 and 41.6. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Mail Stop AF, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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Patent

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants: LOC et al.

Application No.: 10/813,377

Filing Date: 3/30/2004

For: THERMAL DISTRIBUTION  
SYSTEM FOR VOLTAGE  
REGULATOR

) Confirmation No.: 4695  
)  
) Group Art Unit: 2838  
)  
) Examiner: Rajnikant B. Patel  
)  
) ARGUMENTS IN SUPPORT OF PRE-  
) APPEAL BRIEF REQUEST FOR REVIEW  
)  
) Attorney Docket No.: P18194  
)  
) **PTO Customer Number 28062**  
) Buckley, Maschoff & Talwalkar LLC  
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**CERTIFICATE OF MAILING UNDER 37 CFR 1.8**

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Dated: January 10, 2007

By:

  
Edith Martin

Mail Stop AF  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

Applicants submit the following arguments in support of the accompanying Pre-Appeal Brief Request For Review.

**Arguments begin on page 2 of this paper.**

## ARGUMENTS

Applicants raise the following arguments as evidence of clear error in the outstanding rejection of twice-rejected independent claims 1, 10, and 15.

### I. THE PENDING CLAIMS ARE NOT INDEFINITE UNDER 35 U.S.C. §112.

#### SECOND PARAGRAPH

The office action states that the phrase “[a first one of] the N phases is located is less thermally-sensitive than a second area of the substrate in which the second of the N-phases is located” is indefinite and unclear in light of the specification. Applicants respectfully disagree.

One of ordinary skill in the art would have no trouble understanding the metes and bounds of the above-quoted phrase. More particularly, one of ordinary skill would clearly understand the meaning of the term “thermally-sensitive” as well as the concept of locating phases in areas exhibiting various thermal sensitivity.

The specification is consistent with the plain meaning of the disputed phrase. Applicants submit that, as stated on page 2, lines 14 – 21 of the specification, “[i]n some embodiments, voltage regulator converter 14 comprises two or more phases as is known in the art. Voltage regulator controller 12 may control voltage regulator converter 14 to generate a first current within a first one of the phases and to generate a second current within a second one of the phases. According to some embodiments, electrical elements of one of the first and second phases may therefore generate less heat than electrical elements of the other one of the first and second phases. The phase that generates less heat may be located in an area of a substrate that is more thermally-sensitive than the area in which the other phase is located.”

In view of the foregoing, applicants submit that claims 1 through 15 comply with the second paragraph of 35 U.S.C. § 112.

## II. THE PRIOR ART DOES NOT SUPPORT A REJECTION UNDER 35

### U.S.C. §103

Independent claim 1 describes an apparatus that comprises a substrate, a voltage regulator converter and a voltage regulator controller coupled to the voltage regulator converter. The voltage regulator converter comprises N phases, where N is greater than one, and each of the N phases is located in a respective one of N areas of the substrate. A first one of the N phases is to generate more heat than a second one of the N phases, and a first area of the substrate in which the first one of the N phases is located is less thermally-sensitive than a second area of the substrate in which the second one of the N phases is located.

However, the prior art is not seen to disclose or to suggest a first one of N phases to generate more heat than a second one of N phases, wherein a first area of a substrate in which the first one of the N phases is located is less thermally-sensitive than a second area of the substrate in which the second one of the N phases is located.

Elbanhawy discloses a multi-phase power supply and, as conceded in the November 17<sup>th</sup> Non-Final Office Action, Elbanhawy fails to disclose or suggest a first area of a substrate in which a first one of N phases is located and which is less thermally sensitive than a second area of the substrate.

The office action alleges that the Abstract of Rich discloses a first area of the substrate in which “the first one of the N phases is located is less thermally sensitive than a second area of the substrate”. The abstract describes thermal conductors located in thermal proximity of selected portions of a microwave signal processing means, a power condition means, and a control signal processing means to conduct thermal energy away from these means. However, nowhere does the abstract disclose or suggest a thermally sensitive area that is less or more sensitive than any other area, nor does the abstract disclose phases located in thermally sensitive areas. The abstract also fails to disclose or to suggest locating an element that generates a greater amount of heat in a less thermally sensitive area of a substrate and an element that generates a lesser amount of heat in a more thermally sensitive area.

The remaining portions of Rich have been reviewed and are not seen to contain any disclosure or suggestion of a first area of the substrate in which the first one of the N phases is located is less thermally sensitive than a second area of the substrate.

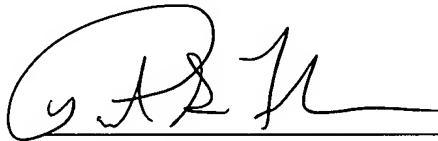
Tabaian describes a circuit for regulating power by sharing power equally amongst all phases of the circuit. However, since each phase of the circuit uses a same amount of power, Tabaian makes no mention of thermal differences among the phases. Accordingly, Tabaian fails to disclose or suggest a first area of a substrate in which a first one of N phases is located and which is less thermally sensitive than a second area of the substrate. In view of the foregoing, claim 1 is believed to be in condition for allowance.

Claims 10 and 15 relate to a method and a system, respectively, in which a first one of N voltage regulator phases is to generate more heat than a second one of N voltage regulator phases, and wherein a first area of a substrate in which the first one N voltage regulator phases is located is less thermally-sensitive than a second area of the substrate in which the second one of the N voltage regulator phases is located. In view of at least the foregoing reasons given above with respect to claim 1, claims 10 and 15 are believed to be in condition for allowance.

## CONCLUSION

For at least the reasons given above, it is submitted that the current rejections of the application are improper and should be withdrawn. If any questions arise regarding the application or any of the cited references, or if the panel has suggestions for expediting allowance of the application, the panel is kindly invited to contact the undersigned via telephone at (203) 972-4982.

Respectfully submitted,



January 10, 2007

Date

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